shige was so great as to be beyond all criticism, that one was spellbound as by an almost religious awe. This first act of the play is, incidentally, the greatest. In order to save ten thousand soldiers of the loyalist army and enable them to get to Kyoto to defend the rightful Emperor, Kusunoki Masashige, with a small detachment of only seven hundred men, had held up the mighty army of the usurper Ashikaga Takauji. In the end, all the seven hundred except Kusunoki Masashige and twelve companions were killed in battle. These thirteen men felt then that they could no longer hold up Ashikaga Takauji's tens of thousands of soldiers, and they retired to a small farmhouse. This is where the play begins. It shows the men, all of them wounded, deciding to kill themselves rather than surrender. Matsumoto Koshiro, who is over seventy years old, rose to the supreme heights of a tragedian at the moment when he declared, before killing himself, that he was determined to serve the Emperor in seven lives in undying faithfulness.

It is this spirit of Dai Nanko which lives on in the Nipponese soldier.

WORLD PRESS DIGEST

A large number of newspapers and periodicals from countries outside of Greater East Asia have during the last few months been placed at our disposal. Many of these publications contain interesting material which enables us to throw a glance into those parts of the world with which we have no contact as a result of the war. In the following pages we present condensations of some of these items as they appeared in the world's press during the last few months.—K.M.

EYE BANK

(From "Time")

Six blind people were waiting in a Manhattan hospital last week for second-hand eyes. Never since doctors discovered how to replace fogged corneas with clear ones from corpses have there been enough eye transplants to go round. Doctors estimate that the cornea operation could help 100,000 U.S. citizens to see, but it is a rare type of philanthropist who at his death gives his sound eyes for this purpose.

To remedy the local eye shortage, the two big hospitals which do a lot of New York City's eye work (Cornell Medical Center, Manhattan Eye and Ear Hospital) are starting an eye bank. It will be run on the same principle as a blood bank except that 1) any healthy human eye will do for transplanting—blood type does not matter; 2) doctors do not like to use grafts from eyes that have been kept more than 72 hours, so the bank's assets must be used more quickly than a blood bank's.

The plan is to get 100 or more metropolitan hospitals to contribute eyes from cadavers, always getting legal releases, even for willed eyes, as relatives often object to their removal. Each of the hospitals in succession will get a week's supply of eyes, will turn over any extra eyes to other hospitals that need them. A very few eyes will go a long way—one sound eye can provide grafts for as many as three blind eyes. Once the eye bank gets established, no blind person whose cornea can be repaired should have to wait very long to see.

SWITZERLAND'S OCEAN-GOING FLEET

(The joke about the Swiss navy is one of long standing. Since the early days of the war, however, Switzerland has had own her merchant marine, in spite of the fact that the country has no access to the sea. The following is a condensation of an article appearing in the "Neue Zürcher Zeitung.")

During the early part of 1939 the first suggestions were made to the Swiss Government to purchase some ocean freighters so that, in the case of war, products needed by Switzerland from overseas could be fetched by ships flying the Swiss flag. But after having made inquiries in London and Washington, the Swiss authorities arrived at the conclusion that a solution of this kind was impossible. The Government itself could not at that time consider starting a shipping enterprise of its own, as its organization was not elastic enough and did not possess the necessary experience. For the founding of a Swiss private shipping enterprise, conditions were also unfavorable at the beginning of 1939, as the shipping firms of all countries were working at a loss as a result of the depression that had been lasting for five years.

A practical solution was finally found in the charter of Greek ships of a total tonnage

of 115,000 tons, to which the belligerents of both sides promised to grant immunity. The contract for the Greek ships covered a period lasting up to three months after the conclusion of an armistice, with an option for another three months. This arrangement proved very satisfactory for Switzerland until Greece was drawn into the war in the autumn of 1940, a situation which led to new complications. It was only then that the drawing up of a Swiss maritime code and the introduction of the Swiss flag to the high seas became an urgent matter.

Today Switzerland owns ocean vessels of a total tonnage of 124,000 tons. In addition to the former Greek ships there is the *Lugano* (9,300 tons), belonging to the Swiss Shipping Co., Ltd., and sailing to African and American ports, and the *Generosa* (2,260 tons), on the Marseille-Lisbon run. Thanks to the immunity granted these ships by all belligerents, some 80 million francs have been saved so far in war-risk premiums.

The Swiss ships, which serve exclusively for Swiss purposes—except when serving the purposes of the International Red Cross, which has additional shipping space at its disposal—are respected by all parties. The sole mishap was the sinking of the *Maloja* (2,650 tons), which was hit by bombs near Genoa. Among the ports called at regularly by Swiss vessels are Marseille, Lisbon, Barcelona, Bilbao, Philadelphia, Rio de Janeiro, Santos, Buenos Aires, Havana, Lourenço Marques, and several other Central American and African ports. The Greek ships have proved satisfactory and are carrying Swiss cargoes at less than the world-market rates. The Government has also been negotiating the charter of Spanish ships.

The Swiss Government has already made it quite clear that after the end of the war the Government will discontinue its own shipping and will offer those ships remaining in its hands to private enterprises at favorable prices.

THREE DAYS' LEAVE

By Gretta Palmer

(Condensed from "Woman's Home Companion," one of the most widely read women's magazines in the USA)

Pregnancy is the main problem of health welfare within American industry. The 20 million women who are working in industry are nearly all of child-bearing age, and half of them are married. The consequence is a high percentage of absences from work, increased number of abortions, and a deteriorating influence on the general state of health.

One large enterprise, with factories in many parts of the country, has calculated that one seventh of all its married female employees are permanently absent because they have just had a child, or are expecting one, or because they are undergoing abortion. This particular concern does not object to pregnancy. There are, however, a number of factories which do discharge a woman as soon as it becomes evident that she is going to have a baby. They are afraid of getting into trouble, for if a woman, while working, should happen to fall victim to an accident followed by a miscarriage—how large is the indemnity she will be entitled to claim? In such factories, women are confronted with the tragic choice: child or work. They often conceal their condition and remain at work much too long; frequently they turn to the assistance of an abortionist.

A well-known American physician, Dr. Morris Fishbein, has estimated the increase of abortions during the war to be between 20 and 40 per cent. One quarter of all the pregnancies in one of the country's largest war industries is being artificially interfered with, according to reports submitted by this concern's medical supervisors. In many towns with war industry the common expression is "three days' leave" when speaking of an abortion.

"Quick, quick, Junior has got one."
(Collier's)

AMERICA TURNS TO RICE GROWING

(Condensed from a U.P. telegram from Washington)

The US Department of Agriculture has announced that the rice harvest of 1943 in the Western Hemisphere has reached the record amount of 200 million bushels. This is almost twice as much as the normal harvest fifteen years ago. The acreage devoted to rice has been considerably increased in all Western countries in which soil and climatic conditions permit the growing

of rice. This intensified rice cultivation is chiefly the result of the stoppage of rice imports originating from Burma, French Indo-China, and Thailand, which countries supplied 95 per cent of the rice demand in international trade before the war.

According to the figures of the US Department of Agriculture, some 55 per cent of the 1943 rice harvest of the Western Hemisphere was produced in South America, 37 per cent in North America, 4 per cent in Central America, and 4 per cent in the Caribbean area. The average rice harvest of the United States in the five-year period 1926/30 amounted to 42.5 million bushels; 1943 saw the record harvest of 70 million bushels.

Since the growing of rice has proved itself to be profitable in America, it is to be assumed that the considerably increased cultivation will be continued after the war. This production would, however, have a decisive influence on the international rice market of the future. Since rice was grown on a large scale only in the consumer countries themselves, the quantity appearing on the international market represented no more than a few per cent of the world's production. The additional offers from America would consequently cause a strong oversupply on a narrow international market which, moreover, appears somewhat threatened by the progressing change-over of rice consumers to the consumption of wheat.

SWEDEN IN CHARGE

(Condensed from a Stockholm report to the "Neue Zürcher Zeitung")

Sweden is second only to Switzerland in the number of requests she has accepted to protect the interests of belligerent states. She now represents twenty states in more than sixty countries. The latest requests in this respect were for Sweden to take charge of the interests of Argentina in Germany and Japan and of the interests of Greece in Germany, which were hitherto represented by Argentina. The Foreign Office in Sweden has organized a special "B Department" to handle this work. Although some 15,000 letters and telegrams arrived at or were sent out from the B Department and its card index contains the names of about 30,000 people, it has no more than eleven employees in Stockholm. Another 150 people or so are employed abroad. In nine capitals, in particular in Berlin, Rome, London, Washington, and Tokyo, a B Department has been attached to the Swedish legations, with a Swedish official heading the necessary Swedish or foreign office personnel; in other countries the work is taken care of by the regular diplomatic or consular personnel. Expenditure for other nations amounted to some 5 million kroner last year; relief payments are included in this figure. The expenses arising for the Swedish Government from this work are refunded by the various countries according to a fixed proportion.

The largest amount of work for Sweden is involved in protecting the interests of Germany, which she represents in four countries. The Netherlands probably occupy second place, as Sweden has taken charge of their interests in seven countries. The interests of Hungary are represented by Sweden in eight countries, as are those of the Soviet Union, whom Sweden also represents in Germany. Furthermore, Sweden represents Japan and Mexico in four countries each, Finland, Rumania, and Iran in three countries each, and Iceland, Slovakia, Belgium, and Argentina in two countries each. In several cases Sweden has undertaken to protect the interests of both sides as, for instance, those of the Soviet Union in Finland and those of Finland in the Soviet Union.

The B Department deserves special mention for its collaboration in the various exchange procedures for diplomats and other citizens of both camps, for which the two large Swedish liners *Drottningholm* and *Gripsholm* were made available.

A YELLOW BOOK

(From "Time")

Frenchmen in Algiers pressed another case: the need of their comrades inside France for arms. The resistance movement in the homeland, they claimed, should be recognized as the vanguard of Allied invasion. In the ranks of 40,000 shock troops actively harrying the Germans, there was not more than one weapon for every 20 men. "The underground movement," said one resistance delegate, "is dying from exhaustion."

The delegates in the Assembly knew that for some time no arms had been delivered to French patriots from England. They rejected the Allied explanation that bad weather had prevented deliveries by air, charged both the [Algiers] Committee and the Allies with disregarding the resistance movement's needs.

As head of the Committee, General Charles de Gaulle answered for its actions. "Some day," he said, "a Yellow Book—a sad book indeed—will be published about the talks that took place between our Committee and the Allied Governments. You will see then that we did all we could. . . . We must recognize that [the Allies] have done much to help. . . . If their help has not equaled the high level reached by the men in the resistance movement, I prefer not to talk about it."

"In this room I have hoarded a few things that we shan't be able to get anywhere soon."

(Saturday Evening Post)

SPIES IN THE USSR

(In Moscow the "Pravda" published a speech taking up one and a half of its pages and held by N. S. Khrustchiov, the Chairman of the Council of People's Commissars of the Ukrainian Soviet Republic, in Kiev. The speech dealt with the troubles encountered by the Bolsheviks in the territories reoccupied by the Red Army last year; the following is a condensed excerpt.)

The Ukrainian-German nationalists served as guides for the German troops. We have in our hands numerous original documents which bear witness to the part played by the Ukrainian-German nationalists, to their loyal service to the Germans. When partisan detachments were formed on Ukrainian soil in the rear of the German Army, the Ukrainian-German nationalists decided upon a trick. They also pretended to be enemies of the Germans and formed armed nationalist bands. In reality, however, they did not once oppose the Germans but conducted warfare upon the Soviet partisans and the Red Army. In January 1944 representatives of Ukrainian nationalist organizations held negotiations with the German authorities, as the result of which they were supplied by the Germans with arms, ammunition, and food in return for the promise to conduct a desperate struggle against the Red Army and the Soviet partisans. The Presidency of the Supreme Council and the Council of People's Commissars of the Ukrainian Soviet Republic turn to the Ukrainian nationalists with an appeal promising to pardon the offenses of all those who renounce their ties with the Germans.

(The Soviet radio recently broadcast a statement by the public prosecutor's office in Moscow pointing to the infiltration of enemy agents and spies into the Soviet Union. The following is an excerpt.)

There are spies who have found their way into the Red Army, into armament plants, into important factories, where they copy documents and steal plans. Even the strongest army grows weak if it is not watchful. When the enemy retreats from territories formerly occupied by him, he leaves spies behind in the guise of partisans. These men have received special training in spy schools. They are disguised as soldiers, refugees, workers, party functionaries, and they possess all the necessary papers.

(This is followed by a number of examples of espionage activity, such as that of a spy who caused a woman in love with him to become the mistress of an armament worker and in this way obtained secret material.)

THE END OF THE AMERICAN SILVER EXPERIMENT

(Condensed from "Der Bund," Bern)

The mighty hoard of silver which has been assembled in the vaults of the US Treasury is now, according to a Washington report, to be placed entirely at the disposal of the armament industry. This means the end of the much-attacked monetary policy conducted by the US Government since 1934 under the pressure of the country's silver producers. The object of this policy was to create a metal coverage for the US dollar consisting of one quarter silver and three quarters gold. As a result, the Government made huge silver purchases at prices far above the level of the world-market price.

By a new law, the Green Bill, President Roosevelt has now been empowered by Congress to sell the "free" silver, which is not directly earmarked for the note coverage, to the war industry as well as to lend this industry the monetary silver reserves. The quantity of silver being put on the market

by this measure corresponds to the world production of about eight years. Half of it is free silver and half of it monetary silver serving as a cover for the silver certificates in the hands of the public.

To a certain extent the "splendid isolation" of the American silver reserves had already come to an end in 1942, when a law was passed permitting the Treasury to lend nonmonetary silver to industry on condition that it would not be used up but returned to the Government upon demand after the war. Since the end of 1942, free silver has been finding increasing uses in industry, for instance, in the form of electric wiring, especially in the new Government armament plants, to free copper for the manufacture of ammunition. According to the statement made by a representative of the Office for War Production before the Senate Finance and Currency Committee, 245 million ounces of the 1.29 billion ounces of free silver reserves of the Government were "loaned" to the Army Administration for military purposes and more than a billion ounces to industry, so that actually there are no more than 48 million ounces of free silver left.

In order to cover further war-essential requirements of silver, it became necessary for the monetary silver, too, to be loaned out by the Government under the same conditions as hitherto the free silver, so that in future the silver certificates will possess only a theoretical cover. Moreover, the free silver already placed on the market will no longer be recalled and may now be used up. Industrial experts have calculated that the entire amount will barely suffice to cover the requirements of one year.

In this way the Green Bill has solved the extremely complicated problem that had arisen from the hoarding of such vast silver reserves. Apparently American economic and Government circles do not reckon with a return to the silver policy of 1934. The general assumption is that the many new industrial uses found for silver are not a passing phenomenon of the war but will continue to play a role in future peace-time economics.

OUT OF THE ASHES

(Condensed from the "Neue Zürcher Zeitung")

After one of the heavy air raids on Leipzig, the subscribers to the magazine *Atlantis* were informed by the publishers that the November and December issues had been destroyed and that they were to be compensated by a double issue appearing in January. This double issue has appeared now; and when the reader opens it, he feels almost overwhelmed with gratefulness to the editor, who has opened his inexhaustible archives, chosen the best, compiled it with his usual care, and in this way turned a loss into a unique asset.

On about a hundred pages of photos and print we are introduced to "Places and Words of Worship." The field covered is a very wide one: Christianity, Islam, Hinduism, Buddhism, and Chinese nature religions appear in illustrations and speak to us in documents.

BACTERIA UNDER THE WEATHER

(Condensed from a DNB scientific report)

Recent observations in Germany have shown that microorganisms and bacteria react to certain types of weather. Thus the luminescence of the microorganism *Vibrio Dunbar* increases when a high-pressure area is formed and decreases with the forming of a low-pressure area. The same is true of the power of reduction or speed of reproduction of *Streptococcus lactis*, the most important lactic-acid-forming bacillus, which decreases in a cyclonic atmosphere and increases with the development of a high-pressure area.

The conclusion drawn from these observations is that on the whole the speed and completeness of microbiological processes is to a certain extent related to weather conditions. During high-pressure periods the various manifestations of life of microorganisms are more intensive, and vice versa. However, it is less the constant weather than the changes of weather which are mirrored in biological life. Thus, just before the sky becomes more cloudy, bacteria swarm out very little or not at all; when the cloudiness decreases, their swarming activity intensifies again.

It may, perhaps, be of practical significance that the protective power of human saliva against bacteria increases in high-pressure weather and is reduced in a low-pressure period. However, the change in the saliva occurs somewhat later than the change in the activities of the microorganisms. As a result of this difference in time, it is possible that saliva which is still weak meets with highly virulent bacteria, or vice versa. In the first case the reproduction of disease germs in the human body would be favored, in the second it would be impeded. In view of the fact that the changes in the protective

power of the saliva occur in all human beings in the same way, the outbreak of an epidemic would be favored in the first case, while in the second case the dying away of an epidemic would be favored.

Food Will Win the War!
"Maybe, but how are you going to get the enemies to eat here?"
(Saturday Evening Post)

WHITHER THOU GOEST . . .

(As condensed from "Time" by "Reader's Digest," Overseas Edition)

There is a strange war being fought at present in the whole of the United States by a gigantic, unorganized army of women. The combatants are the wives, mothers, and fiancées of men called to the colors, and their only battle plan is to follow in the wake of the men they love.

The enemies of these women are communications, which are strained to breaking point; the high cost of living, which makes the meager family allowance barely sufficient for self-support; the serious shortage of accommodations; and inhuman rents—not to mention the increasing difficulties in getting in touch with the men. Disappointments caused by the men's unforeseen transfer by sudden military orders can confound all their plans, so carefully worked out for several months in advance, and make their long, costly, and tiresome journeys quite useless.

Relief organizations such as Traveler's Aid, Red Cross, and the Army and Navy's Social Bureaus are flooded with applications from stranded women who are overtaken by difficulties during their travels. In 1942, Traveler's Aid had to attend to 885,000 such cases. During the first six months of 1943 the figure had risen to 1¼ million cases and is continuing to increase steadily.

Traveler's organizations are doing everything within their power to dissuade the women from undertaking journeys which are not absolutely unavoidable, but the soldier's wife interprets the idea of "absolutely unavoidable" in her own peculiar way.

And what can one say to such candid confessions as the following? It was made by a young girl from the Eastern States who had traveled 4,300 kilometers across the American continent to California: "I do not understand why I went. It was a horrid journey. But when I heard that Harry was in San Francisco I simply had to try to see him. He was at the Aleutians and I hadn't heard anything from him for more than two months."

A girl from Kansas went to Miami, Florida, to be married. She met her fiancé at the railroad station ready to leave in a troop train for "somewhere" with his unit. He barely had time to tell her to travel north some 2,700 kilometers to Newark, New Jersey, where he knew he was to change trains and continue his journey to some encampment around New York, he didn't know which. Alone, unhappy, and miserable, the girl dashed up to Newark. There she went to meet each arriving troop train and hung around at the station for two days searching among all who arrived. Finally she collapsed, and a welfare organization had to take care of her.

The soldier's wife, who is naturally never in a position to give an officially acceptable reason for her journey, stands always at the bottom of the list of persons permitted to board trains. In busses the military are given precedence over all others, and the soldier's wife must take her place at the end of the facilities granted civilians. In the busses which run to and from the naval base off Corpus Christi, Texas, all uniformed men are, however, permitted to take their wives with them, and women who often have errands there have evolved a special technique of providing themselves with male companions for the sole purpose of getting a lift.

Social welfare workers have had many an occasion to wonder at the astonishing ignorance of young brides who had lived a carefree, secure life in some small town. Many of them had to be taught such simple things as how to insert a coin into the slot of an automatic public telephone and how to dial the number.

A sailor's wife who moved into New York with her three children told the Traveler's Aid office that she hoped to be able to get a "nice four-roomed flat near Central Park"—where the most expensive apartment houses in New York are located—for something around 18 dollars a month!

When the exhausted soldier's wife finally arrives at the end of her journey, the real difficulties have only begun for her. In the first place, most of the hotels are overcrowded and, in places where the shortage of accommodation is at its worst, landlords have established a veritable blockade against families with small children. This disgraceful state of affairs evoked the following protest in the form of a newspaper ad :

A naval officer's wife, whose husband is serving his country in another hemisphere and who is the mother of THREE MONSTERS, viz., children, wishes to rent a house, flat, SHED, CAGE or anything at all which may serve as a shelter under present circumstances.

Other house-hunters try to appeal directly to the landlord's tender heart in this way :

I am only three weeks old. My daddy, who is a naval officer, wishes so much to live together with me and Mummy. We need a furnished flat. HELP ME ! REPLY TO JUDY !

But once the soldier's wife has made up her mind to follow her husband, nothing short of his transfer to another hemisphere can stop her; and when large troop forces are shifted from one part of the United States to another, this army of women sets out in their wake.

ONLY 348 DAYS UNTIL . . .

(From "Time")

U.S. citizens were reminded for the umpteenth time of the incredible energy and resolution which set Eleanor Roosevelt apart from ordinary women: the First Lady reported in her column of Jan. 12 that she had been out the day before buying "some Christmas presents for the coming year."

PLANE WITHOUT PROPELLER

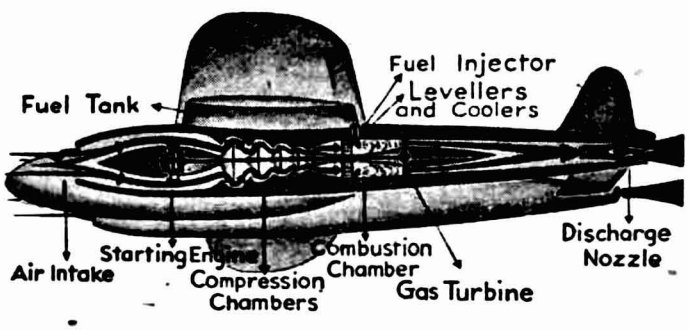
(Condensed from "Svenska Dagbladet")

The new propellerless, jet-propulsion airplane mentioned recently in press dispatches is, according to the latest information available, a pursuit plane constructed from drawings made by Colonel Frank Whittle, in his day a well-known British pursuit pilot. The reports spread about its speed vary between 800 and 1,000 kilometers per hour; but even the highest of these figures is not beyond the realm of probability.

One must differentiate between the rocket-propulsion plane and the jet-propulsion plane, although both are based on the same principle. A rocket plane carries both fuel and the oxygen required for its combustion (the fuel being either gunpowder or hydrogen plus oxygen, which latter two are mixed before combustion to produce oxyhydrogen gas), whereas the jet-propulsion plane, while carrying its fuel, takes the oxygen for combustion directly from the surrounding atmosphere. Hence a rocket airplane is not dependent on the quantity of oxygen contained in the atmosphere through which it flies; on the other hand, it must carry a fuel load some seventeen to eighteen times as large as the fuel load of a jet-propulsion plane. For this reason, airplanes constructed for rocket propulsion only are at present useless for all practical purposes. One can, however, easily visualize an ordinary propeller-driven plane being provided with a rocket apparatus to give it an extra acceleration for short periods of time. The Germans have for many years been using rocket equipments to aid heavily loaded planes at the take-off, and not long ago it was reported that German bombers are equipped with an extra rocket apparatus to enable them to increase their flying speed at critical moments, for instance, when it becomes necessary at all cost to evade defensive pursuit planes during a bombing raid.

But, to return to the jet-propulsion principle, it should be noted that it is by no means a technical novelty, although until very recently it had not yet been directly employed in practice.

The basic principle of jet propulsion is, in short, that air is taken in through the plane's nose or the forward edge of the wings. Passing by the starting engine, it is drawn into rotary compression chambers where it is highly compressed. When the air leaves the compressing chambers, fuel is injected into it, and this mixture is then forced into the combustion chamber. As a



result of the rapid rise in temperature caused by the combustion, the burning gas mixture expands tremendously and jets out of the discharge nozzle at the rear, thus creating a powerful thrust which drives the plane forward. The rotary air compressors are driven by the starting engine; when this is cut off they can be driven by a gas turbine which absorbs a small fraction of the gas pressure created in the combustion chamber.

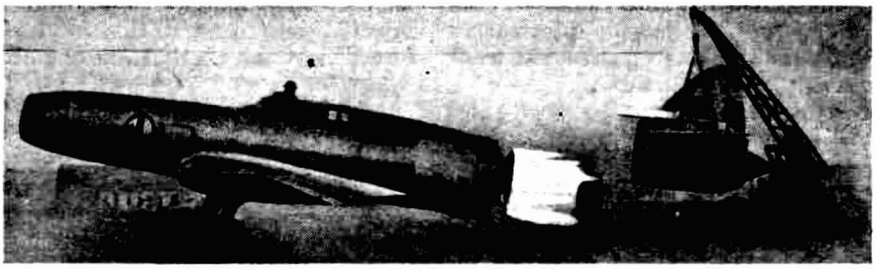
The disadvantage of propeller planes lies in the fact that at high speeds the efficiency of propellers is reduced, so that the top speed of propeller-driven planes has been computed at 850 to 900 kilometers per hour. Jet propulsion, on the other hand, is less efficient at lower speeds, attaining its highest efficiency at velocities above 900 to 1,000 kilometers per hour. Hence jet propulsion is unsuited for the take-off, the propelling power of the jet at a few kilometers per hour being very low in proportion to the total weight of the propulsion equipment.

Several solutions have been thought of to remedy this drawback. Amongst other schemes, rocket equipments have been suggested as starting aids. Another solution, which seems to have found particular favor in the USA, is that shown in our illustration: a jet-propulsion plane equipped with an ordinary aircraft motor driving a propeller for starting which could later be cut off and replaced by jet propulsion at a higher altitude and higher speed.

The first jet-propelled airplane in the world actually to have made a flight was constructed by the Italian engineer S. Campini, who began with his experiments in 1932 and got his machine into the air by 1940. But his plane—the Caproni-Campini—did not come up to the expectations of its constructor. Campini calculated the maximum speed of his plane at over 700 kilometers per hour; but during the only serious test made with it on a long-distance flight, the Campini plane covered the 474 kilometers from Milan to Rome in 2 hours and 15 minutes, viz., at an average of 210 kilometers per hour. However, as the plane made a stop of unspecified length during this flight, its actual flying speed was higher, although hardly above 400 kilometers per hour.

Among other constructors of jet-propelled planes, the famous German Professor Junkers and his equally famous countryman Heinkel deserve mention. France was intensely interested in jet propulsion, and at the aeronautical exhibition in Paris in 1938 Léduc showed a model of a jet-propulsion plane which he claimed to have a power of 14,000 hp, a maximum speed of 1,000 kilometers per hour, a top ceiling of 30,000 meters, and a range of 4 hours flying time. The model he exhibited was a small plane with a wing spread of only 10 meters, i.e., about the same size as a modern pursuit plane. The well-known French firm of Breguet backed Léduc's projects, and the first French jet-propulsion plane was expected to take to the air in 1940. But then came the war and put a stop to this as to so many other French aviation schemes. The British aviation magasine *Flight* in its issue of September 1941 gave a diagrammed description of the jet-propulsion plane.

Since then, further experiments with jet-propulsion planes have been veiled in secrecy. But a few months ago it began to look as if this type of plane might after all see service in this war. Recent data on actual flying performances have, of course, not been made available.



The Propellerless Caproni-Campini Plane

The air sucked in at the front and mixed with an explosive gas can be seen streaming out of the compressor with great force and being ignited. In the tail of the plane, which has been dismantled in this photograph, is the nozzle through which the gases expanding through the explosion escape, thus driving the plane forward.